HL - Hearing Loss

HL-AP ANATOMY AND PHYSIOLOGY

OUTCOME: The patient/family will have a basic understanding of the anatomy and physiology as it relates to hearing loss.

STANDARDS:

1. Discuss normal anatomy and physiology of the ear and hearing.
2. Discuss the changes to anatomy/physiology that have caused the hearing loss.

HL-C COMPLICATIONS

OUTCOME: The patient/family will understand some complications related to hearing loss.

STANDARDS:

1. Explain that the ability to hear is necessary to develop speech/language skills and may be a barrier to learning.
2. Discuss that profound hearing loss may result in increased risk of accidents due to the inability to hear warning noises.
3. Explain that social withdrawal and isolation may occur.
4. Refer to the local public school or other community resources as appropriate.

HL-DP DISEASE PROCESS

OUTCOME: The patient/family will understand some causes of hearing loss.

STANDARDS:

1. Explain the basic anatomy/physiology of hearing as appropriate.
2. Explain the type of hearing loss that applies to this patient:
    a. Conductive hearing loss occur when sound is not conducted efficiently through the outer ear canal to the ear drum, e.g., fluid in the middle ear from colds, allergies, ear infections (otitis media), poor eustachian tube function, impacted ear wax, presence of foreign bodies.
    b. Sensorineural Hearing Loss: occurs when there is damage to the inner ear (cochlea) or to the nerve pathways from the inner ear to the brain. Sensiorineural hearing loss cannot be medically or surgically corrected. It is permanent hearing loss. Noise induced hearing loss is a type of sensorineural hearing loss.

c. Mixed hearing loss is a combination of the above.

HL-EQ EQUIPMENT

OUTCOME: The patient/family will understand and demonstrate (when appropriate) proper use and care of equipment used in hearing loss.

STANDARDS:

1. Discuss equipment to be used in hearing loss. **Refer to HRA.**
2. Discuss and/or demonstrate proper use and care of equipment; participate in return demonstration by patient/family as appropriate.
3. Emphasize proper cleaning of equipment.

HL-FU FOLLOW-UP

OUTCOME: The patient and/or family will understand the importance of follow-up in the treatment of hearing loss.

STANDARDS:

1. Discuss the importance of follow-up care.
2. Discuss the procedure for obtaining follow-up appointments and that follow-up appointments should be kept.
3. Emphasize that full participation of the treatment plan is the responsibility of the patient/family.
4. Discuss signs/symptoms that should prompt immediate follow-up.
5. Discuss the availability of community resources and support services and refer as appropriate.

HL-L LITERATURE

OUTCOME: The patient/family will receive literature about hearing loss.

STANDARDS:

1. Provide the patient/family with literature on hearing loss.
2. Discuss the content of the literature.

HL-LA LIFESTYLE ADAPTATIONS

OUTCOME: The patient/family will understand lifestyle adaptations related to hearing loss.

STANDARDS:

1. Discuss the importance of wearing hearing aids as prescribed.
2. Discuss other assistive devices that may be part of life as a result of profound hearing loss.
3. Discuss sign language and lip reading as appropriate.
4. Discuss vanity and social stigmata as appropriate.

HL-P PREVENTION

OUTCOME: The patient/family will understand measures that may prevent hearing loss.

STANDARDS:

1. Discuss that hearing loss may not be preventable and may be the result of congenital anomalies, use of ototoxic medications, infections, etc.
2. Explain that Noise-Induced Hearing Loss (NIHL) is preventable. Discuss noises which can cause damage (those above 85 decibels). Examples include lawn mowers, chain saws, snowmobiles, motorcycles, firecrackers, hair dryers (primarily because the hair dyer is held close to the ear), firearms, and loud music.
3. Encourage the use of earplugs or earmuffs or other hearing protective devices. Explain the importance of using hearing protection for children who are too young to protect themselves.

HL-SCR SCREENING

OUTCOME: The patient/family will understand screening that may detect hearing loss.

STANDARDS:

1. Explain the screening device to be used.
2. Explain why the screening is being performed.
3. Discuss how the results of the screening will be used.
4. Discuss the importance of follow up for screenings that indicate possible hearing loss.

HL-TE TESTS

OUTCOME: The patient/family will understand the test(s) to be performed, the potential risks, the expected benefits, and the risks of non-testing.

STANDARDS:

1. Explain test(s) that have been ordered (explain as appropriate):
    a. method of testing

b. necessity, benefits, and risks of test(s) to be performed

c. any potential risk of refusal of recommended test(s)

d. any advance preparation and instructions required for the test(s)

e. how the results will be used for future medical decision-making

f. how to obtain the results of the test

2. Explain test results:

a. meaning of the test results

b. follow-up tests may be ordered based on the results

c. how results will impact or effect the treatment plan

d. recommendations based on the test results

HL-TX TREATMENT

OUTCOME: The patient/family will understand various treatment options.

STANDARDS:

1. Explain that treatment depends on the cause of hearing loss. Emphasize that not all hearing loss is treatable and that while there is no cure for age-related hearing loss (Presbycusis), hearing aids may improve age-related hearing loss.
2. Explain that a middle ear infection that has resulted in hearing loss may be treated with antibiotics; blockages of the outer and middle ears can be cleared; damaged eardrums can be repaired surgically; and ossicles affected by otosclerosis can be replaced with artificial bones. Some causes of sensorineural hearing loss can also be improved.
3. A cochlear implant may help when a hearing aid does not give sufficient amplification. This device transmits sound directly into the auditory nerve via electrodes surgically implanted into the cochlea. A cochlear implant results in sounds being heard as buzzing or electronic in nature; implants can be very useful when used in combination with lip reading.